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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Kelly S. French	Examiner: Trang U. Tran
Serial No.:	09/475,220	Group Art Unit: 2614
Filed:	December 30, 1999	Docket: P1500US00
Title:	*METHOD AND APPARATUS FOR COMMUNICATING STATE INFORMATION USING VERTICAL BLANKING INTERVAL*	

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APPELLANT'S BRIEF ON APPEAL

This is an appeal from the Final Office Action dated February 18, 2003, finally rejecting all pending claims—that is, claims 1-5, 7-15, 17-22 and 24—under 35 U.S.C. §102(e) in view of U.S. Patent 6,407,779 ("Herz").

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APPELLANT'S BRIEF ON APPEAL

(1) REAL PARTY IN INTEREST

The real party in interest is Gateway, Inc.

(2) RELATED APPEALS AND INTERFERENCES

Appellant is not aware of any related appeals or interferences.

(3) STATUS OF CLAIMS

The status of the claims is as follows:

Claims pending: Claims 1-5, 7-15, 17-22 and 24.

Claims allowed: None.

Claims objected to: None.

Claims rejected: Claims 1-5, 7-15, 17-22 and 24.

(4) STATUS OF AMENDMENTS AFTER FINAL

There have been no amendments proffered after the Final Office Action.

(5) SUMMARY OF INVENTION

The present application is drawn to systems and methods involving control signals of an information processing system (e.g., a convergence device) and a signal processing device (e.g., a VCR).[1] As discussed in the Background section of the application, it is common for convention devices to send command signals to a signal processing device such as a VCR. For example, handheld remote control devices are often used to send infrared control signals to a VCR to control functions such as play, stop, record, tune to a specified channel, fast-forward, etc. Further, other types of conventional convergence devices have also been used to send VCR control signals. However, conventional VCRs are not capable of returning information to the convergence device. The present invention overcomes this drawback.[2]

In accordance with the present invention, the signal processor (e.g., VCR) receives and processes a control signal from an information processing system (e.g., a convergence system, personal computer, or the like). The signal processor encodes data onto a vertical blanking interval of the output signal such that the encoded data is decodable by the information handling system.[3] The data encoded on the vertical blanking interval may then be provided to the convergence system.[4]

The present invention may be used with other types of signal processing devices aside from VCRs, including, for example, television tuners, video laser disc players, digital versatile disk (DVD) players, or the like. Examples of information processing systems include, for example, computers, or other such systems or devices for controlling a signal processing devices.[5]

(6) ISSUES

Whether the Patent Office properly rejected all pending claims—that is, claims 1-5, 7-15, 17-22 and 24—under 35 U.S.C. §102(e) in view of U.S. Patent 6,407,779 ("Herz")?

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[1] See the specification, for example, page 1, lines 5-8, the Abstract, Fig. 1 and pages 4-8.
[2] See the specification, for example, the Abstract and pages 1-2.
[3] See the specification, for example, the Abstract, Fig. 5, pages 2-3 and pages 8-12.
[4] See the specification, for example, the Abstract, Fig. 5, pages 2-3 and pages 8-12.
[5] See the specification, for example, the Abstract, Fig. 2-5, and pages 1 and 10-12.

(7) GROUPING OF CLAIMS

For each ground of rejection that appellant contests herein which applies to more than one claim, such additional claims, to the extent separately identified and argued herein, do not stand and fall together. The claims are at least as distinguishable as grouped below:

Group I: Claims 1, 3-4, 7, 9-11, 14-15, 17 and 20-22. The prior art does not disclose the features of the Group I claims, for example "a signal processor for receiving a signal to be processed ... wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto a vertical blanking interval of the output signal," as recited in claim 1. Similarly, the prior art does not disclose features recited in the other claims of Group I.

Group II: Claim 2. The prior art does not disclose or suggest the features of the Group II claims, such as "said signal processor including a data encoder for encoding the data onto the output signal," as recited in claim 2.

Group III: Claims 5 and 8. The prior art does not disclose the features of the Group III claims, such as "the output signal provided by said signal processor being video signals," as recited in claim 5; or "the output signal provided by said signal processor being an NTSC compliant video signal," as recited in claim 8.

Group IV: Claims 19 and 24. The prior art does not disclose the features of the Group IV claims, such as "determining that the available vertical blanking interval is not available during a predetermined time after decoding the control signal; and interleaving the data in a previously existing data packet," as recited in claim 19 and in claim 24.

Group V: Claims 12-13 and 18. The prior art does not disclose the features of the Group V claims, such as "the data being indicative of a status of execution of the control signal," as recited in claim 12; or "the data being indicative of a status of said processing means," as recited in claim 13 or the similar feature of claim 18.

(8) ARGUMENTS

GROUP I: (Claims 1, 3-4, 7, 9-11, 14-15, 17 and 20-22).

Regarding Group I, the §102(e) rejection of claims 1, 3-4, 7, 9-11, 14-15, 17 and 20-22 in view of the Herz patent is respectfully traversed.

Anticipation under 35 U.S.C. §102(e) requires the disclosure in a single prior art reference of each element of the claim under consideration. MPEP § 2131; *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Further, "anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." MPEP § 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)).

The Office cites the Herz patent, contending that Herz discloses all features of the claimed invention. The present invention involves a signal processing device (e.g., a VCR, television tuner, video laser disc player, DVD player, or the like). The Office points to the television set 120 of Herz as a signal processor.[6] The Office contends that Herz's signal processor (television set) encodes data onto the output signal in response to the control signal. The Office has adopted the position that a "remote controller system 220" of the Herz patent has the features recited for the information handling system of the claim.[7] Appellant respectfully disagrees with the position adopted by the Office.

The Herz patent involves a universal remote control system in which the television set 220 of Figure 2 contains an infrared communicator 226 for two-way communications with a handheld remote control 210. First, the unit 220—which the Office contends is a "remote controller system 220"—is not a remote controller. The unit 220 is a television set 220.[8] Second, the portion of Herz patent cited as pertaining to a vertical blanking interval ("VBI") involves a cable company's use of the VBI to download programming information for the electronic programming guide ("EPG"). Neither this passage nor any other passage of Herz involves a signal processor (e.g., a VCR) encoding data in the VBI.

Accordingly, it is submitted that the Herz patent does not disclose "wherein said

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[6] Office Action of February 18, 2003, page 3.
[7] In support of this contention, the Office cites the Herz patent at Figs. 1 and 2, col. 3, lines 8-65.
[8] See Herz, Figure 2 and

information handling system provides a control signal to said signal processor and said signal processor encodes data onto the output signal in response to the control signal such that the encoded data is decodable by said information handling system," and "wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto a vertical blanking interval of the output signal," as recited in claim 1. Regarding claim 11, the Herz patent does not disclose "means, coupled with said processing means, for encoding data onto an output signal provided by said processing means in response to the control signal; and ... wherein said data is encoded onto a vertical blanking interval of the output signal." Regarding claim 15, the Herz patent does not disclose "encoding data onto the provided output signal in response to the control signal; [and] wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto an available vertical blanking interval of the output signal." Regarding claim 20, the Herz patent does not disclose "providing an output signal from the signal processor to the information handling system; and encoding data onto the output signal in response to the control signal; wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto an available vertical blanking interval of the output signal."

Consequently, it is respectfully submitted that the §102 rejection of the Group I claims cannot be properly maintained.

GROUP II: (Claim 2).

Regarding Group II, the §102(e) rejection of claim 2 in view of the Herz patent is respectfully traversed. Claim 2 depends from claim 1, and is therefore submitted to be patentable for the same reasons as claim 1, set forth above.

In addition, claim 2 recites "said signal processor including a data encoder for encoding the data onto the output signal." [It should be noted that the signal processor (e.g., which may be a VCR) "receiv[es] a signal to be processed," as recited in claim 1.] The Office appears to adopt the position that unit 222 (characterized as an "OSD/DTC/VBI slice") discloses this feature. However, the Herz patent merely states that the "television set block 220 of the preferred embodiment comprises a video signal receiver 222 for receiving and processing radio frequency

or baseband video data... ."[9] It is respectfully submitted that Herz does not disclose the aforementioned feature of claim 2.

Further, claim 2 recites "said information handling system having a data decoder for decoding the data from the output signal received from said signal processor," as recited in claim 2 (emphasis added), wherein "the data is encode onto a vertical blanking interval of the output signal," as recited in claim 1. The Office appears to adopt the position that the IRDA encoder/decoder unit 303 discloses this feature. However, it is believed that the Herz patent does not disclose the aforementioned features of claim 2 in view of claim 1.[10]

Consequently, it is respectfully submitted that the §102 rejection of the Group II claim cannot be properly maintained.

GROUP III: (Claims 5 and 8).

Regarding Group III, the §102(e) rejection of claims 5 and 8 in view of the Herz patent is respectfully traversed.

Claim 5 recites "the signal to be processed and the output signal provided by said signal processor being video signals." The Office adopts the position that Figure 2 and col. 3, lines 8-27 discloses the features of claim 5. It is believed that neither this passage or any other passage of the Herz patent pertains the features recited in claim 5.

Regarding claim 8, this claim recites "the output signal provided by said signal processor being an NTSC compliant video signal, the data being encoded onto the vertical blanking interval of the NTSC compliant video signal in compliance with an Electronic Industry Association standard." [Note: Claim 1, from which claim 8 depends, recites "a signal processor for receiving a signal to be processed".] The Office cites col. 15, lines 7-53, contending that this passage of Herz discloses the features recited in claim 8. This passage includes the following:

> After the television set receives the information, the television set automatically sends the information to the remote control for updating the EPG programming data stored in the remote control memory so that the most updated TV

[9] Herz, col. 3, lines 14-16.
[10] See, for example, Herz at col. 3, line 66 to col. 4, line 30.

> programming schedules is stored in the remote control. Similarly, new communication protocol(s) for communicating with different A/V component(s) can also be sent by the television set to the remote control for updating the corresponding protocol(s) currently stored in the remote control.

Although this passage states that the television set can send information to the remote control, it does not disclose the features of claim 8.

Consequently, it is respectfully submitted that the §102 rejection of the Group III claims cannot be properly maintained.

GROUP IV: (Claims 19 and 24).

Regarding Group IV, the §102(e) rejection of claims 19 and 24 in view of the Herz patent is respectfully traversed.

The Group IV claims are drawn to "determining that the available vertical blanking interval is not available during a predetermined time after decoding the control signal; and interleaving the data in a previously existing data packet," as recited in claim 19 and in claim 24. The Office contends that Herz at col. 15, lines 7-53, discloses these features. This passage of Herz involves a cable company's use of the VBI to download EPG programming information. This passage does not involve a signal processor (e.g., a VCR) encoding data in the VBI, or the features recited in claims 19 and 24. Neither the relied-upon passage of Herz, nor any other passage of Herz, discloses the claimed features.

Consequently, it is respectfully submitted that the §102 rejection of the Group VI claims cannot be properly maintained.

GROUP V: (Claims 12-13 and 18)

Regarding Group V, the §102(e) rejection of claims 12-13 and 18 in view of the Herz patent is respectfully traversed.

The claims of Group V are drawn to "the data being indicative of a status of execution of the control signal," as recited in claim 12; "the data being indicative of a status of said processing means," as recited in claim 13 and a similar feature recited in claim 18. The data is encoded onto

a vertical blanking interval of the output signal, as respectively recited in the independent claims from which claims 12-13 and 18 depend. It is respectfully submitted that the relied-upon passages of Herz—that is, col. 8, lines 26 to col. 9, line 47; col. 2, lines 58-65; and col. 9, lines 49 to col. 10, line 59—pertain to the claimed features of the present invention.

Consequently, it is respectfully submitted that the §102 rejection of the Group V claims cannot be properly maintained.

CONCLUSION

Accordingly, reversal of all outstanding rejections is earnestly solicited.

Respectfully submitted,

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Dated: October 20, 2003

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(9) CLAIMS

The claims on appeal:

1. (Previously Presented) A system, comprising:

a signal processor for receiving a signal to be processed; and

an information handling system for receiving an output signal provided by said signal processor, the output signal being representative of at least a portion of the input signal,

wherein said information handling system provides a control signal to said signal processor and said signal processor encodes data onto the output signal in response to the control signal such that the encoded data is decodable by said information handling system;

wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto a vertical blanking interval of the output signal.

2. (Original) A system as claimed in claim 1, said signal processor including a data encoder for encoding the data onto the output signal, and said information handling system having a data decoder for decoding the data from the output signal received from said signal processor.

3. (Original) A system as claimed in claim 1, said information handling system having a transmitter for transmitting the control signal to said signal processor, and said signal processor having a receiver and decoder for receiving and decoding the control signal received from said information handling system.

4. (Original) A system as claimed in claim 1, said information handling system being capable of reproducing the output signal received from said signal processor.

5. (Original) A system as claimed in claim 1, the signal to be processed and the output signal provided by said signal processor being video signals.

Claim 6 (Cancelled).

7. (Previously Presented) A system as claimed in claim 1, the output signal provided by said signal processor being an NTSC compliant video signal.

8. (Previously Presented) A system as claimed in claim 1, the output signal provided by said signal processor being an NTSC compliant video signal, the data being encoded onto the vertical blanking interval of the NTSC compliant video signal in compliance with an Electronic Industry Association standard.

9. (Original) A system as claimed in claim 1, the control signal being a wireless signal.

10. (Original) A system as claimed in claim 1, said signal processor being an information storage media player.

11. (Previously Presented) A system, comprising:

means for processing a received signal;

means for transmitting a control signal to said processing means;

means, coupled with said processing means, for receiving and decoding the control signal;

means, coupled with said processing means, for encoding data onto an output signal provided by said processing means in response to the control signal; and

means for transmitting the output signal to said transmitting means wherein said transmitting means is capable of decoding the encoded data from the provided signal;

wherein said data is encoded onto a vertical blanking interval of the output signal.[11]

[11] During the preparation of this Appeal Brief a clerical error was noted in the Amendment dated November 26, 2002. It was noted that the feature of independent claim 11 was mistakenly typed twice in reproducing the claim in the Amendment of November 26, 2002. Namely, at pages 2 and 6 of the Amendment, the feature "means, coupled with said processing means for receiving and decoding the control signal;" was mistakenly included twice in the claim. The redundant recitation of this feature is a typographical error rather than being a part of the claimed invention.

12. (Original) A system as claimed in claim 11, the data being indicative of a status of execution of the control signal.

13. (Original) A system as claimed in claim 11 the data being indicative of a status of said processing means.

14. (Original) A system as claimed in claim 11, said processing means including means for storing at least a portion of the received signal to an information storage medium and for reproducing at least a portion of the stored signal as the output signal.

15. (Previously Presented) A method, comprising:

transmitting a control signal to a signal processor from an information handling system that controls the signal processor;

receiving and decoding the control signal;

providing an output signal from the signal processor to the information handling system; and

encoding data onto the provided output signal in response to the control signal;

wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto an available vertical blanking interval of the output signal.

Claim 16 (Cancelled).

17. (Original) A method as claimed in claim 15, further comprising the step of decoding the data from the provided output signal.

18. (Original) A method as claimed in claim 15, the data being indicative of a status of the signal processor.

19. (Previously Presented) A method as claimed in claim 15, further comprising the steps of:

determining that the available vertical blanking interval is not available during a predetermined time after decoding the control signal; and

interleaving the data in a previously existing data packet.

20. (Previously Presented) A program of instructions storable on a computer readable medium for causing an information handling system to execute a series of steps, the steps comprising:

transmitting a control signal from an information handling system to a signal processor that the information handling system controls;

receiving and decoding the control signal;

providing an output signal from the signal processor to the information handling system; and

encoding data onto the output signal in response to the control signal;

wherein the output signal provided by said signal processor is a video signal, and the data is encoded onto an available vertical blanking interval of the output signal.

21. (Original) A program of instructions as claimed in claim 20, the steps further including the step of decoding the data from the output signal.

22. (Original) A program of instructions as claimed in claim 20, the data being indicative of a state of the signal processor.

Claim 23 (Cancelled).

24. (Previously Presented) A program of instructions as claimed in claim 20, the steps further comprising the steps of:

determining that the available vertical blanking interval is not available during a

predetermined time after decoding the control signal; and

interleaving the data in a previously existing data packet.